2008-2009

# A Guide for Parents and Families About What Your FOURTH GRADER Should Be Learning In School This Year

SC EDUCATION OVERSIGHT COMMITTEE

This guide shares important information about the South Carolina Academic Standards. These standards outline state requirements for your child's learning program and what students across the state should be able to do in certain subjects.

A good educational system provides many tools that help children learn. Academic standards are useful for making sure:

- teachers know what is to be taught;
- children know what is to be learned; and
- parents and the public can determine how well the concepts are being learned.

The following pages provide information about the South Carolina Academic Standards for mathematics, English language arts, science and social studies for Fourth Grade. The information can help you become familiar with what your child is learning at school and may include activities to reinforce and support your child's learning, selected book titles for additional reading, and Web site addresses for extended learning. Because sites change, please preview before students begin work. This version does not include every standard taught in Fourth Grade. The complete South Carolina Academic Standards for each subject area can be found at www.sctlc.com or at www.ed.sc.gov.

The state-developed test is based on the South Carolina Academic Standards. A new test will be administered in 2009; sample questions from that test are not yet available.

## South Carolina Academic Standards

Here are seven key reasons parents should be in the know about the academic standards:

1. Standards set clear, high expectations for student achievement. Standards tell what students need to do in order to progress through school on grade level.
2. Standards guide efforts to measure student achievement. Results of tests on grade-level academic standards show if students have learned and teachers have taught for mastery.
3. Standards promote educational equity for all. Instruction in every school in the state will be based on the same academic standards.
4. Standards help parents determine if children in South Carolina are taught the same subject content as children across the nation. South Carolina Academic Standards have been compared with and matched to national standards as well as standards of other states to make sure that they are challenging.
5. Standards inform parents about the academic expectations for their child. Standards give parents more specific information for helping their child at home. Parents no longer have to guess the type of help their child needs to do better in school.
6. Standards enable parents to participate more actively in parent/teacher conferences. Knowledge of the academic standards helps parents understand more about what their child is learning and what they can do at each grade level. Parents are able to have conversations with teachers about student progress in specific areas and understand more completely the progress of their child.
7. Standards help parents see how the current grade level expectations are related to successive years' expectations. Parents are able to see how their child's knowledge is growing from one year to the next.

### WEB RESOURCES

South Carolina Department of Education (SCDE):
www.ed.sc.gov

South Carolina Education Oversight Committee (EOC):
www.eoc.sc.gov

South Carolina: Teaching, Learning, and Connecting (SCTLC):
www.sctlc.com

South Carolina Education Television (SCETV):
www.knowitall.org

# ENGLISH LANGUAGE ARTS

Students should be able to:

## Reading

- Draw conclusions and make inferences when reading
- Distinguish between first-person (told by a character using the pronouns "I" and "we") and third-person (told by a narrator who reads the thoughts and feelings of all characters) points of view
- Understand how characters are developed and their importance to conflict in stories
- Understand why authors use colorful words, phrases, and dialogue
- Analyze how authors use details to support the main idea of a story
- Create responses to reading by writing, acting, drawing, dancing, or singing
- Classify works of fiction by characteristics (fables, tall tales, and folktales) and works of nonfiction (including biographies and personal essays)
- Summarize the evidence that supports the central idea in a nonfiction text
- Analyze nonfiction texts for facts and opinions
- Use headings, subheadings, print styles, white space, and chapter headings to gain information on nonfiction texts
- Use tables of contents, glossaries, indexes, and appendixes
- Break words into parts to understand what the word means

## Writing

- Use planning strategies, such as brainstorming, when writing
- Use a variety of types of sentences
- Write multi-paragraph compositions that include a main idea, supporting details, and transition words or phrases between paragraphs
- Use the correct verb with the subject of the sentence
- Use past, present, and future verb tenses correctly
- Use conjunctions such as although, while, neither, and nor correctly
- Use adverbs such as slow, slowly and slowest correctly
- Use the correct pronoun to replace a noun
- Capitalize titles, brand names, proper adjectives, and names of organizations
- Use quotation marks with dialogue and titles of texts published within larger texts (e.g. the title of a song on a CD)
- Underline or italicize the title of a book
- Combine two sentences by using a comma and a conjunction or a semi-colon
- Improve word choice and the organization of ideas in writing by editing and revising
- Create postcards, flyers, letters, and e-mails
- Write stories that include details and events to develop a plot
- Write so that the reader can see, smell, hear, taste, or feel what is described
- Create skits or plays

## Research

- Select a topic for research making sure it is not too broad
- Gather information from sources, such as books, newspapers, graphs, dictionaries, encyclopedias, atlases, thesauri, almanacs, and nonprint media (e.g., television, Internet)
- List the titles and authors of books used in research
- Select appropriate graphics to support written or oral presentations

## Activities

- Read and write poetry with your child
- Provide a variety of reading materials for your child to use, such as books, magazines, newspapers, dictionaries, encyclopedias, atlases, almanacs, and nonprint media (e.g. television, internet)
- Regularly visit the local public library or bookstore
- Discuss conflict when watching a television show or a video
- Discuss with your child how a problem in a story is solved
- Read aloud to your child and discuss a character's actions
- Create and perform a play for the family
- Help your child create a flyer to advertise a yard sale, missing pet, or neighborhood event
- Create a postcard to send to family or friends
- Point out colorful words or phrases when reading or watching television with your child
- Ask your child's opinion of a book and encourage your child to support his/her conclusion
- When reading with your child, ask your child to figure out the meaning of an unknown word by using clues in the story
- Encourage your child to review and edit his homework assignments
- Ask your child to identify and sequence the events in a story that are recalled or made up
- Have your child locate information by using a table of contents and find word meanings in the glossary

## Books

- Altman, Linda Jacobs. *Amelia's Road*
- Creech, Sharon. *Walk Two Moons*
- DiCamillo, Kate. *Because of Winn Dixie*
- Hamilton, Virginia. *Cousins*
- Naylor, Phyllis. *Shiloh*
- Robinson, Barbara. *The Best School Year Ever*
- Selden, George. *The Cricket in Times Square*
- Simon, Seymour. *Tornadoes*
- Steig, William. *Abel's Island*
- Thayer, Ernest L.. *Casey at the Bat*
- Viorst, Judith. *If I Were in charge of the World and Other Worries*
- White, E.B. *Charlotte's Web*
- Winthrop, Elizabeth. *The Castle in the Attic*

Continued on back panel

# MATHEMATICS

Students should be able to:

## Numbers and Operations

- Apply an algorithm (method of solving a problem) to multiply whole numbers fluently
- Generate strategies to divide whole numbers by single-digit divisors
- Apply strategies and procedures to find equivalent forms of fractions and compare fractions and decimals
- Generate strategies to add and subtract decimals through hundredths

## Algebra

- Translate among letters, symbols, and words to represent quantities in simple mathematical expressions or equations
- Use a rule to complete a sequence or a table

## Geometry

- Represent the two-dimensional  shapes trapezoids, rhombuses, and parallelograms, and the three-dimensional shapes cubes, rectangular prisms, and cylinders
- Find points in the first quadrant of a coordinate grid
- Illustrate possible paths from one point to another along vertical and horizontal lines in the first quadrant of a coordinate grid

## Measurement

- Recall equivalencies: 8 liquid ounces = 1 cup, 2 cups = 1 pint, 2 pints = 1 quart, 4 quarts = 1 gallon, 365 days = 1 year, 52 weeks = 1 year, 16 ounces = 1 pound, 2,000 pounds = 1 ton, and 5,280 feet = 1 mile
- Use equivalencies to convert units of measure within the U.S. Customary System
- Apply strategies and procedures to determine the amount of elapsed time in hours and minutes within a 12-hour period, either a.m. or p.m.

## Data Analysis and Probability

- Interpret data in graph displays with scale increments greater than one
- Analyze possible outcomes for a simple event

## Activities:

Have your child:

- Explain ways problems that require division with whole numbers can be solved
- Use grid paper to represent trapezoids, rhombuses, and parallelograms
- Go on a shape hunt to find cubes, rectangular prisms, and cylinders in the environment
- Play a location game like "Battleship," which requires identification of points on a grid
- Think of real-life examples involving number quantities such as, "I am three years older than my brother." Translate the examples into simple equations using numbers and symbols, such as *My age = Brother's age +3*
- Use recipes to discuss equivalencies and to convert between measurements
- Talk about the day in terms of time that has elapsed since getting up and doing various activities (Limited to a 12-hour period)
- Roll a six-sided numeral cube, list all the possible outcomes (one through six), repeat with two numeral cubes (two through 12)

## Books:

- Anno, Mitsumasa. *Upside-Downers*
- Hoban, Tana. *Shadows and Reflections*
- Pinczes, Elinor. *A Remainder of One*
- Russo, David Anson. *The Great Treasure Hunt*
- Shannon, George. *Stories to Solve: Folk Tales from Around the World*
- Straker, Anita. *Mental Math*
- Tang, Greg. *Math for All Seasons*

## Web Sites:

- http://www.aplusmath.com – Interactive site with games and a homework helper
- http://www.coolmath4kids.com – Interactive site for students
- http://www.funbrain.com/index.html – Interactive math activities

# SCIENCE

Students should be able to:

## Inquiry

- Classify observations as either quantitative or qualitative
- Use appropriate instruments and tools (including a compass, an anemometer, mirrors, and a prism) safely and accurately when conducting simple investigations
- Summarize the characteristics of a simple scientific investigation that represent a fair test
- Distinguish among observations, predictions, and inferences
- Recognize the correct placement of variables on a line graph
- Construct and interpret diagrams, tables and graphs made from recorded measurements and observations
- Use appropriate safety procedures when conducting investigations

## Organisms and Their Environment

- Classify organisms into major groups according to their physical characteristics
- Explain how the characteristics of distinct environments influence the variety of organisms in each
- Explain how humans and other animals use their senses and sensory organs to detect signals from the environment and how their behaviors are influenced by these signals
- Distinguish between the characteristics of an organism that are inherited and those that are acquired over time
- Explain how an organism's patterns of behavior are related to its environment
- Explain how organisms cause changes in their environment

## Astronomy

- Recall that Earth is one of many planets in the solar system that orbit the Sun
- Compare the properties and the location of Earth to the Sun, which is a star, and the Moon
- Explain how the Sun affects Earth
- Explain how the tilt of Earth's axis and the revolution around the Sun results in the seasons of the year
- Explain how the rotation of Earth results in day and night
- Illustrate the phases of the Moon and the Moon's effect on ocean tides
- Interpret the change in the length of shadows during the day in relation to the position of the Sun in the sky
- Recognize the purpose of telescopes

## Weather

- Summarize the processes of the water cycle
- Classify clouds according to their three basic types and summarize how clouds form
- Compare daily and seasonal changes in weather conditions and patterns
- Summarize the conditions and effects of severe weather phenomena and related safety concerns
- Carry out the procedures for data collecting and measuring weather conditions by using appropriate tools and instruments
- Predict weather from data collected through observation and measurements

## Properties of Light and Electricity

- Summarize the basic properties of light
- Illustrate the fact that light, as a form of energy, is made up of many different colors
- Summarize how light travels and explain what happens when it strikes an object
- Compare how light behaves when it strikes transparent, translucent and opaque materials
- Explain how electricity, as a form of energy, can be transformed into other forms of energy
- Summarize the functions of the components of complete circuits
- Illustrate the path of electric current in series and parallel circuits
- Classify materials as either conductors or insulators of electricity
- Summarize the properties of magnets and electromagnets
- Summarize the factors that affect the strength of an electromagnet

## Activities:

Have your child:

- Create a particular environment in a bottle terrarium, adding the appropriate organisms for that environnment
- Keep a night sky journal for several months, charting the phases of the moon and the location or one major constellation (such as the Big Dipper)
- Observe and record the weather for a month, create drawings or other symbols for the different types of clouds and weather conditions
- Create a flashlight using a battery, light bulb, homemade switch, and cardboard

## Books:

- Arnosky, Jim. *Crinkleroot's Guide to Walking in Wild Places*
- Asimov, Isaac. *Why Does the Moon Change Shape?*
- Cole, Joanna and Bruce Degan. *The Magic School Bus and the Electrical Field Trip*
- Cole, Joanna. *The Magic School Bus Inside a Hurricane*
- Gold, Becky. *Chasing Tornadoes*
- Nankivell-Aston, Sally and Dorothy Jackson. *Science Experiments with Light*
- Stille, Darlene R. *Tropical Rain Forests*
- Taylor, Barbara. *Look Closer: Desert Life*
- Whalley, Margaret. *Magnetism & Electricity*

## Web Sites:

- AAAS Science Netlinks - www.sciencenetlinks.com
- Department of Natural Resources - www.dnr.state.sc.us
- eNature - www.eNature.com
- Franklin Institute - www.fi.edu
- NASA's space website for children - http://kids.msfc.nasa.gov
- National Weather Service: www.nws.noaa.gov

# SOCIAL STUDIES

Students should be able to:

## United States Studies to 1865

- Explain the political, economic, and technological reasons for the exploration of the New World by Europeans
- Use a map to identify the routes of expeditions to the New World, match these routes to the territories claimed by different nations, and summarize the discoveries made by the expeditions
- Explain the exchange of plant life, animal life, and disease that resulted from exploration of the New World
- Use the land bridge theory to summarize and illustrate the spread of Native American populations
- Compare the everyday life, physical environment, and culture of the major Native American cultural groups
- Identify the different European colonies in North America and summarize the reasons for the settlement of these colonies
- Compare the European settlements in North America in terms of their economic activities, religious emphasis, government, and lifestyles
- Summarize the introduction and establishment of slavery in the American colonies
- Explain the impact of indentured servitude and slavery on life in the New World and the contributions of African slaves to the development of the American colonies
- Explain how conflicts and cooperation among the Native Americans, Europeans, and Africans influenced colonial events
- Explain the political and economic factors leading to the American Revolution
- Summarize the roles of principal leaders involved in the American Revolution
- Summarize the events and key battles of the Revolutionary War
- Explain how other nations contributed to the American victory in the Revolutionary War
- Compare the daily life and roles of diverse groups of Americans during and after the Revolutionary War
- Explain the effects of the American Revolution on African Americans and Native Americans
- Compare the ideas in the Articles of Confederation with those in the United States Constitution
- Classify government activities according to the three branches of the federal government and give examples of the system of checks and balances
- Explain the role of the Bill of Rights in the ratification of the Constitution
- Compare the roles and accomplishments of early leaders in the development of the new nation
- Provide examples of how American democracy places important responsibilities on citizens to take an active role in influencing government
- Compare the social and economic differences of the two political parties that began to form in the 1790s
- Summarize the major expeditions and explorations that played a role in westward expansion and compare the geographic features of areas explored
- Summarize the reasons for and events that led to key territorial acquisitions and the location and geographic features of the lands acquired
- Explain how territorial expansion and related land policies affected Native Americans
- Use a map to illustrate patterns of migration and trade during westward expansion
- Compare the experiences of different groups who migrated and settled in the West
- Explain how specific legislation and events affected the institution of slavery in the territories
- Compare the industrial North and the agricultural South before the Civil War
- Summarize the roles and accomplishments of the leaders of the abolitionist movement and the Underground Railroad before and during the Civil War
- Explain how specific events and issues led to the Civil War
- Summarize significant key battles, strategies, and turning points of the Civil War and the role of African Americans in the war
- Compare the roles and accomplishments of key figures of the Civil War
- Explain the impact of the Civil War on the physical environment, groups of people, and the nation as a whole

## Activities:

Have your child:

- Label sites of Native American lands, important settlements, colonies, and battles of the Revolution on a map
- Watch the evening news. Map the places mentioned in the United States. Discuss how different places relate to events in U.S. history, such as colonization or westward expansion
- Visit historic sites in South Carolina and in the other states related to the American Revolution and/or the Civil War. Discuss the key events that took place at these historical sites
- Read maps, charts, and graphs that show areas explored and acquired during westward expansion
- Read about historical figures that interest your child, such as explorers, Native American leaders, leaders of the American Revolution, and/or leaders of the abolitionist movement
- Complete a graphic organizer that illustrates the three branches of United States government and the system of checks and balances

Continued on back panel

# SOCIAL STUDIES

Continued

## Books:

- Addy: *American Girl* Series books
- Archer, Jules. *A House Divided: The Lives of Ulysses S. Grant and Robert E. Lee*
- Bulla, Clyde Robert. *Squanto, Friend of the Pilgrims*
- Connell, Kate. *Tales from the Underground Railroad*
- Fritz, Jean. *Will You Sign Here, John Hancock?*
- Gregory, Kristiana. *The Winter of Red Snow*
- Johnson, Delores. *Now Let Me Fly: The Story of a Slave Family*
- Patrick, Diane. *The New York Public Library Amazing African-American History*
- Waldman, Scott P. *The Battle of Lexington and Concord*
- Wisler, G. Clifton. *The Red Cap*

## Web Sites:

- American Local History Network - www.alhn.org
- CIA Homepage for Kids - http://www.cia/gov/kids-page/index.html
- First Gov for Kids - www.kids.gov
- Kid Info - www.kidinfo.com
- Smithsonian National Museum of American History - www.americanhistory.si.edu
- The Gilder Lehrman Institute of American History - www.gilderlehrman.org

# ENGLISH LANGUAGE ARTS

Continued

## Web Sites

- Carol Hurst's Children's Literature Site – http://www.carolhurst.com
- Learning Page.com – http://www.sitesforteachers.com
- National Parent Teacher Association – http://www.pta.org
- Surfing the Net with Kids – http://www.surfnetkids.com
- United States Department of Education – http://www.ed.gov/parents
- Stories from the Web – http://www.storiesfromtheweb.org
- American Library Association – http://www.ala.org/ala/booklist/booklist.htm

SC EDUCATION OVERSIGHT COMMITTEE

PO Box 11867 | 227 Blatt Building | Columbia SC 29211 | WWW.EOC.SC.GOV

A collaborative project sponsored by South Carolina Department of Education & South Carolina Education Oversight Committee, Spring 2008